

Running MSC/NASTRAN

Or the death of UAINAST and the
birth of MNAS

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UAI/NASTRAN is going away

- MSC/NASTRAN (version 70.7) is installed on parrot and lynx – Our Nastran servers
- UAI/NASTRAN will expire this spring
- New software to control job execution is installed and operational. It works on both UNIX and NT – The birth of MNAS

MNAS introduction

- mnas on parrot and lynx replaces uainast.
- mnas will also work on your NT boxes
(and Windows 2000)
- Submits jobs to queues slow and fast. Jobs greater then 10 minutes go into slow queue, less then 10 minutes into fast queue
- There are command line options with mnas

Mnas setup

- mnas –h tells you what needs to be setup on your IRIX account to work
 - a) The environment variable LSF_ENVDIR set to /apps_parrot/lsf/mnt/conf
 - b) Your path points to /apps_parrot/lsf/bin
- On NT the setup is the installation of the LSF client S/W and a few things Tim Carnahan needs to do – ME!

Executing mnas on IRIX

- Just type mnas foo
- mnas will look for a file with extensions if none is provided.
- mnas will run jobs in long queue if there is no time card
- Mnas places results in the current working directory
- Use –opt to give the nastran command extra options

MNAS on NT

- Similar to IRIX
- Added options -d to not delete temp files

Examples

```
C:\Documents and Settings\tcarnahan\My Documents\Lsf>mnas rev2a_fixed
short name dir is C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/
delete these when done: 7 files
rev2a_fixed.f04 rev2a_fixed.log rev2a_fixed.op2 rev2a_fixed.op2 rev2a.bdf
bsub -J rev2a_fixed -q ntfast -L /bin/sh -f "C:/DOCUME~1/TCARNA~1/MYDOCU~1/
sf/rev2a_fixed.dat > /home/tcarnahan/nastran/rev2a_fixed.dat" -f "C:/DOCUME~1
TCARNA~1/MYDOCU~1/Lsf/rev2a.bdf > /home/tcarnahan/nastran/rev2a.bdf" -f "C:/DOC
ME~1/TCARNA~1/MYDOCU~1/Lsf/ifilesrev2a_fixed > /home/tcarnahan/nastran/ifilesre
2a_fixed" -f "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/filesrev2a_fixed > /home/tcar
ahan/nastran/filesrev2a_fixed" -f "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_f
xed.f06 < /home/tcarnahan/nastran/rev2a_fixed.f06" -f "C:/DOCUME~1/TCARNA~1/M
DOCU~1/Lsf/rev2a_fixed.f04 < /home/tcarnahan/nastran/rev2a_fixed.f04" -f "C:
DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fixed.log < /home/tcarnahan/nastran/rev2a_
fixed.log" -f "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fixed.op2 < /home/tcar
ahan/nastran/rev2a_fixed.op2" -f "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fix
d.op2 < /home/tcarnahan/nastran/rev2a_fixed.op2" /bin/nastran /home/tcarnahan
nastran/rev2a_fixed.dat
Job <3427> is submitted to queue <ntfast>.
```

Job checking/killing

- To check the status of a job use bjobs or bhist jobid
 - bjobs all your current jobs
 - bjobs -u all every users current jobs
 - bhist -l jobid for details on your job
- Use bkill to kill a pending or executing job
 - bkill 3390 for example
- Use bqueues to see job queues

Examples

```
C:\Documents and Settings\tcarnahan\My Documents\Lsf>bjobs  
JOBID USER      STAT  QUEUE      FROM_HOST     EXEC_HOST    JOB_NAME      SUBMIT_TIME  
•   tcarnaha RUN      ntfast      tern          parrot.gsfc *v2a_fixed Mar 01 10:23
```

```
C:\Documents and Settings\tcarnahan\My Documents\Lsf>bhist -l 3427
```

```
Job <3427>, Job Name <rev2a_fixed>, User <tcarnahan>, Project <default>, Command </bin/nastran /home/tcarnahan/nastran/rev2a_fixed.dat>  
Thu Mar 01 10:23:12: Submitted from host <tern>, to Queue <ntfast>, CWD <C:/Documents and Settings/tcarnahan/My Documents/Lsf>, Copy Files "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fixed.dat" > /home/tcarnahan/nastran/rev2a_fixed.dat" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a.bdf" > /home/tcarnahan/nastran/rev2a.bdf" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/ifilesrev2a_fixed" > /home/tcarnahan/nastran/ifilesrev2a_fixed" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/filesrev2a_fixed" > /home/tcarnahan/nastran/filesrev2a_fixed" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fixed.f06" < /home/tcarnahan/nastran/rev2a_fixed.f06" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fixed.f04" < /home/tcarnahan/nastran/rev2a_fixed.f04" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fixed.log" < /home/tcarnahan/nastran/rev2a_fixed.log" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fix ed.op2" < /home/tcarnahan/nastran/rev2a_fixed.op2" "C:/DOCUME~1/TCARNA~1/MYDOCU~1/Lsf/rev2a_fixed.op2" < /home/tcarnahan/nastran/rev2a_fixed.op2", Login Shell </bin/sh>;  
Thu Mar 01 10:23:26: Dispatched to <parrot.gsfc.nasa.gov>;  
Thu Mar 01 10:23:26: Starting (Pid 238803);
```

More Examples

```
C:\Documents and Settings\tcarnahan\My Documents\Lsf>bkill 3427  
Job <3427> is being terminated
```

```
C:\Documents and Settings\tcarnahan\My Documents\Lsf>bqueues
```

QUEUE_NAME	PRIO	STATUS	MAX	JL/U	JL/P	JL/H	NJOBS	PEND	RUN	SUSP
ntfast	60	Open:Active	-	-	-	-	0	0	0	0
fast	60	Open:Active	-	-	-	-	0	0	0	0
priority	43	Open:Active	-	-	-	-	0	0	0	0
owners	43	Open:Active	-	6	-	-	0	0	0	0
chkpnt_rerun_qu	40	Open:Active	-	-	-	-	0	0	0	0
night	40	Open:Inact	-	-	-	-	0	0	0	0
license	33	Open:Active	-	-	-	-	0	0	0	0
ntslow	30	Open:Active	-	-	-	-	0	0	0	0
slow	30	Open:Active	-	-	-	-	0	0	0	0
normal	30	Open:Active	-	-	-	-	0	0	0	0
idle	20	Open:Active	-	-	-	-	0	0	0	0

Summary of Commands

Mnas filename	Launches nastran on filename
Bjobs	Shows the status of running jobs
Bhist	History of running jobs
Bqueues	Status of queues
Bhosts	Status of hosts – lynx and parrot
Bkill	to stop a job